

DPM 955

## MATERIAL SAFETY DATA SHEET

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### IDENTIFICATION

**Name**  
Sodium Cyanide

#### Synonyms

Cyanide of Sodium  
**CAS Name**

Sodium Cyanide

**I.D. Nos./Codes** NIOSH Registry No. VZ 75250

Wiswesser Code NC-NA-

#### Manufacturer/Distributor

E. I. du Pont de Nemours & Co., (Inc.)

#### Address

Wilmington, DE 19898

### HAZARDOUS COMPONENTS

#### Material(s)

Sodium Cyanide

### PHYSICAL DATA

**Boiling Point, 760 mm Hg**

1496°C/2725°F

**Specific Gravity**

1.6

**Vapor Density**

(Air = 1) 1.7

**% Volatiles by Vol.** 0

#### Form

Solid

#### Appearance

Granular

#### pH Information

Not available

### FIRE AND EXPLOSION DATA

**Flash Point**

None

**Method**

**Flammable Limits in Air, % by Vol.**

Not applicable

#### Fire and Explosion Hazards

Will not burn

#### Extinguishing Media

Not applicable

**Special Fire Fighting Instructions** Do not use water if involved in fire. Toxic water solutions may escape to surrounding areas. Contact with acids or acid salts will release highly toxic and flammable hydrogen cyanide gas.

**Tradename:**

Cyanobrik®/Cyanogran®

#### Chemical Family

Metal Cyanide

**CAS Registry No.**

143-33-9

**Formula:**

NaCN

**Product Information and Emergency Phone**

(901) 357-1546

**Transportation Emergency Phone**

(800) 424-9300

#### Approximate %

100%

**Melting Point**

564°C/1047°F

**Vapor Pressure**

Not applicable

**Solubility in H<sub>2</sub>O**

37% (at 20°C)

**Evaporation Rate (Butyl Acetate = 1)**

Not applicable

**Color**

White

**Odor**

Pungent

**Octanol/Water Partition Coefficient**

Not applicable

**Autoignition Temperature**

Not applicable

**Lower**

**Upper**



The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The information set forth herein is furnished free of charge and is based on technical data that Du Pont believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents.

**Instability**

Will react with acids to liberate highly toxic and flammable hydrogen cyanide gas.

**Incompatibility****Decomposition****Polymerization**

Will not occur

**HEALTH HAZARD INFORMATION****Exposure Limits**

OSHA Time Weighted Average (as CN) = 5 mg/m<sup>3</sup>.

**Routes of Exposure and Effects**

Highly toxic; may be rapidly fatal if swallowed or inhaled.

Causes eye burns.

May irritate skin.

**First Aid**

Study and plan First Aid action before beginning work with cyanide --- See attached page 3.

**PROTECTION INFORMATION****Ventilation**

Use only with adequate ventilation.

**Personal Protective Equipment** Use respirator if there is danger of breathing dust; air or oxygen mask in emergencies.

**Other** Wear coverall chemical safety goggles and/or face shield. Rubber gloves for solutions. Dry cotton gloves for dry material.

**DISPOSAL PROCEDURES****Aquatic Toxicity**

Not available

**Spill, Leak or Release** Do not breathe dust or gas. Do not get in eyes. Avoid skin contact. Sweep up spillage and store in covered container pending transfer to disposal facility.

**Waste Disposal** Comply with Federal, State and local regulations. Do not flush sodium cyanide into sewers which may contain an acid. If approved, neutralize with sodium or calcium hypochlorite and flush to waste treatment system or call disposal contractor.

**SHIPPING PRECAUTIONS****Transportation**

DOT Shipping Name = Sodium Cyanide, solid (or solution). DOT class = Poison B

**Shipping Containers** 49 STCC Code = 4923228. UN No. 1689. IMCO Class 6.1. Railroad tank cars. Flo-bins®. Drums.

**Storage Conditions** Store in dry place. Keep container closed and away from acids, weak alkaline salts and oxidizing agents. Do not store near foodstuffs.

**REFERENCES AND ADDITIONAL INFORMATION**

Do not breathe dust or gas. Do not get in eyes. Avoid contact with skin. Do not carry foodstuffs, beverages or tobacco where contamination with cyanide is possible. Wash thoroughly after handling. Wash contaminated clothing before reuse.

See: Du Pont Bulletin on Sodium Cyanide

National Fire Protection Association Manual 49, 491M.

DATE: 6/79



## PROTECTION INFORMATION

### **Ventilation**

Good ventilation should be provided to keep dust and HCN gas below exposure limits.

### **Personal Protective Equipment**

Recommended Minimum Protection - chemical splash goggles and rubber gloves (butyl preferred).

Have available and use as appropriate:

- Face shields; rubber suits, aprons, and boots.
- Disposable respirators (if dusty conditions exist).
- Self-contained breathing air supply (in case of emergency).
- HCN detector.
- First Aid and Medical Treatment supplies\*, including oxygen resuscitators.

\* See Du Pont Sodium Cyanide Storage and Handling Bulletin for list of supplies.

## DISPOSAL INFORMATION

### **Aquatic Toxicity**

Highly toxic to marine life.

### **Spill, Leak or Release**

Sweep up and shovel into a covered container or plastic bag pending transfer to a disposal facility. Keep spillage dry. Flush spill area with a dilute solution of sodium or calcium hypochlorite. Comply with Federal, State, and local regulations on reporting releases.

### **Waste Disposal**

Comply with Federal, State, and local regulations. Do not flush cyanide into sewers which may contain an acid. Detoxify with sodium hypochlorite, or hydrogen peroxide; flush to waste water treatment system; or call a licensed disposal contractor.

## SHIPPING INFORMATION

### Transportation

DOT Hazard Class.\*: Poison B

IMO Class.: 6.1

DOT Shipping Name\*: Sodium Cyanide, Solid

UN No.: 1689  
NA No.:

RQ Quantity\*: 10 lb/4.54 kg

### Shipping Containers

"Wet-Flo" railcars and tank trucks; hopper railcars; Flo-Bins® (3000 lb net); 100 lb and 200 lb steel drums.

### Storage Conditions

Store in properly labeled containers in dry, ventilated, secured areas. Keep containers closed and contents dry. Do not store with acids or acid salts, weak alkalis, or oxidizing agents. Do not handle or store food, beverages, or tobacco in cyanide areas. Do not store near combustibles or flammables because of cyanide solution run-off from water used for fire fighting.

\*49 CFR 172.101, Hazardous Materials Table

## ADDITIONAL INFORMATION AND REFERENCES

For further information, see Du Pont Sodium Cyanide Storage and Handling Bulletin.